Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of	)	GN Docket No. 10–127
Framework for Broadband Internet Service	)	FCC 10–114
	)	

Comments of the Rehabilitation Engineering Research Centers on
Universal Interface & Information Technology Access (RERC-IT)
Telecommunications Access (RERC-TA)

Note these comments are being re-filed because of a filing error on July 15th

I. Introduction

The Rehabilitation Engineering Research Center Universal Interface & Information Technology Access (RERC-IT) and the RERC on Telecommunications Access (RERC-TA) submit these comments in response to the Federal Communications Commission's (FCC or Commission) Notice of Inquiry on a Framework for Broadband Internet Service.[1] The RERC-IT is located at the University of Wisconsin-Madison Trace Center. The RERC-TA is a joint project of Gallaudet University and the University of Wisconsin-Madison Trace Center. Both RERCs are funded by the National Institute on Disability and Rehabilitation Research of the U.S. Department of Education.

The primary mission of the RERCs is to find ways to make standard systems directly usable by people with all types and degrees of disability, and to work with industry and government to put access strategies into place. The RERCs have previously submitted

[1] *Framework for Broadband Internet Service,* Notice of Inquiry, GN Docket No. 10–127; FCC 10–114, Federal Register/Vol. 75, No. 121/Thursday, June 24, 2010.

comments in response to numerous FCC proceedings on broadband-related issues, including its proceedings on the application of Section 255 to IP telephony, the Commission's Section 706 inquiry concerning the deployment of advanced telecommunications capability to all Americans, the Commission's proceedings on IP-enabled services, and various wireline and cable broadband proceedings.

II. People with Disabilities Have Low Broadband Adoption and Utilization Rates

The FCC has a statutory obligation to ensure that its actions on network neutrality protect access to the Internet by people with disabilities. As broadband technologies continue to evolve at dramatic speeds and as the need for access to such technologies becomes essential to full participation in our society, it is critical to ensure that this population is not left behind. Access to broadband is essential to employment, educational, and recreational opportunities, inclusion in civic affairs, and a multitude of other life activities. As the Commission notes, the Internet has "transformed the nation's economy, culture, and democracy,"[2] allows "unprecedented platform for speech, democratic engagement, and cultural development,"[3] provides "almost instant access to a vast reservoir of human knowledge,"[4] and enables access to information on healthcare and educational materials that "would otherwise be unreachable."[5]

The Commission's recently released Working Paper on Broadband Adoption and Use in America ("Working Paper") has confirmed the low adoption rates of broadband technologies by people with disabilities.[6] Although 65 percent of all American adults were found to be

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[2] *Id.* at ¶1.
[3] *Id.* at ¶23
[4] *Id.*
[5] *Id.* at ¶22.
[6] Horrigan, J, Broadband Adoption and Use in America, OBI Working Paper Series No. 1, viewable at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296442A1.pdf.

broadband adopters, only 42 percent of Americans with disabilities reported having broadband in their homes, a mere two-thirds of the national average.[7] Additionally, according to the Working Paper, 39 percent of Americans who do not have broadband (the largest group of non-adopters) have a disability, compared with just 15 percent of adopters overall.[8] Similarly, senior citizens with disabilities are 76 percent less likely to have broadband than senior citizens without disabilities.[9]

The Working Paper further revealed that people with disabilities use the Internet for fewer purposes, revealing online activity at a rate that was 12 percent lower than that for persons without disabilities; the Paper's authors hypothesized that this "may reflect difficulties some people with disabilities have in using the devices to get online or interacting with Web pages."[10] Combined, these various statistics confirm prior findings, contained in the Pew Broadband Adoption Study, that price, availability, and usability are primary reasons for not using broadband in the home.[11] They also support the Commission's prior conclusion that the inability to use existing technology and applications due to physical or mental disabilities is one of the primary barriers faced by non-adopters.[12]

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[7] Working Paper at 3. Only 56 percent of people with disabilities are Internet users (presumably including dial up users), compared with 78 percent for the national average. Working Paper at 26

[8] Working Paper at 24, 26.

[9] Working Paper at 38

[10] Id. at 38; 7

[11] 2009 Pew Broadband Adoption Study. The Working Paper also confirmed this – i.e., that people with disabilities who are non-adopters tend to be older and have lower incomes. Working Paper at 26.

[12] Comment Sought on Broadband Adoption, NBP Public Notice #16, DA 09-2403 (November 10, 2009), citing The Advanced Communications Law & Policy Institute, New York Law School, Barriers to Broadband Adoption: A Report to the Federal Communications Commission, *available at* http://www.nyls.edu/user_files/1/3/4/30/83/ACLP%20Report%20to%20the%20FCC%20-%20Barriers%20to%20BB%20Adoption.pdf.

The costs of such digital exclusion are overwhelming. As summarized by the National Organizations, a coalition of sixteen national groups dedicated to the pursuit of civil rights for minority populations,

> It is more difficult to get a job without access to online job postings and the ability to submit applications online; students without broadband connections lack access to the same level of information as their connected peers; it is becoming increasingly more difficult for the public to gather news and information about current events without broadband access or participate fully in civic and political debates; finding medical information without access to online health resources limits patients' knowledge, choices, and care; and consumers without broadband access end up paying more for goods and services than those who shop online and experience a myriad of other negative economic effects.[13]

For people with disabilities, not having broadband access can even be more devastating, as information and services provided over the Internet can offer many of these individuals essential tools to become or remain active and independent members of society.

III. The Commission Should Classify Internet Services as Telecommunications Services Subject to the Relevant Requirements of Title II

Our focus throughout these comments is Access for Individuals with Disabilities, and we will assess the impact of the three possible classification frameworks as they affect that issue. While either of the three proposed frameworks for classification of broadband Internet could be used to support accessibility of the Internet for people with disabilities, the approach most likely to be effective, both for people with disabilities and for providers, is the third framework: classifying broadband Internet connectivity as a telecommunication service, but simultaneously forbearing from applying most requirements of Title II to the service, save for a small number of provisions.

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[13] Comments of National Organizations at 6-7 (January 14, 2010) (citations omitted).

A. The Existing Legal Framework Is Less Effective at Facilitating Access for Individuals with Disabilities

The first framework – continuing to classify broadband Internet service as information services and exercising ancillary authority to prohibit practices that interfere with access by people with disabilities – is legally justifiable and could address the issues of access for individuals with disabilities. The Commission could exercise ancillary authority based on the requirements of Sections 254, 255, and 706(a) and (b). In addition, the requirements of the Americans with Disabilities Act (ADA), including Title IV of that Act, provide support for the Commission's exercise of ancillary authority to ensure broadband Internet services are available and accessible to people with disabilities. The Commission may also base the exercise of ancillary authority on the requirements of Section 202(a) of the Communications Act, to the extent that provider practices impose increased costs on individuals with disabilities.

The Commission has consistently and appropriately relied on ancillary jurisdiction to extend accessibility obligations that apply to telecommunications service providers and equipment manufacturers (under Title II) to Internet-related service providers and manufacturers (under Title I). First, in the Commission's 1999 Section 255 Order, the FCC found sufficient Title I authority to regulate information services and equipment manufacturers and to thereby extend the disability obligations to voicemail and interactive menu services providers and manufacturers.[14] Again in 2007, the Commission relied on its ancillary authority under Title I to extend disability access requirements under Section 255, 251(a)(2) and 225 (the telecommunications relay service mandates) to providers of interconnected voice over Internet

[14] *Implementation of Section 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996, Access to Telecommunications Services, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities,* Report and Order and Further Notice of Inquiry, WT Dkt 96-198, FCC 99-181, 16 FCC Rcd 6417, 6461 ¶106 (September 29, 1999).

Protocol (VoIP) services and manufacturers of specially designed equipment used to provide those services. At that time, the Commission explained that exercising such jurisdiction was necessary to "give full effect to the accessibility policies embodied in section 255, and to further [the] statutory mandate to make available a nationwide communications system that promotes the safety and welfare of all Americans."[15] Without regulatory intervention, the Commission concluded, "newly emerging interconnected VoIP services that hold the promise of independence and even fuller participation in our society by those with disabilities may instead result in their further alienation and exclusion within our society and place these individuals at increased risk in emergency situations.[16] And yet again, in 2008, in the FCC's Second Numbering Order for video relay services, the Commission relied on its ancillary jurisdiction to facilitate point-to-point calls over the Internet because, among other things, it stated this would serve the goals of the Communications Act to ensure that "persons with disabilities have the fullest possible access to the Nation's communications system."[17] Ancillary jurisdiction is justified where one service is so functionally tied to another that the failure to regulate the first would undermine the effectiveness of regulation of the other. Today, Internet services and telecommunications services (to the extent they differ at all) are so overlapping that they both

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[15] *IP-Enabled Services, Implementation of Sections 255 and 2519a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996: Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, Report and Order WC Dkt. Nos. 04-36, 96-198, CG Dkt. No. 03-123, CC Dkt. No. 92-105, FCC 07-110 (June 15, 2007) at ¶1.

[16] Id. at ¶17.

[17] *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; E911 Requirements for IP-Enabled Service Providers, Second Report and Order and Order on Reconsideration*, CG Dkt No. 03-123, CC Dkt No. 98-67, WC Dkt No. 05-196, FCC 08-275 (December 19, 2008) at ¶67.

must be regulated together. This overlap is particularly crucial in the disability accessibility context.

However, in light of the *Comcast* decision, this framework is unlikely to provide either Internet service providers or people with disabilities the clarity and consistency necessary to achieve both access and fairness. Such an approach is likely to lead some providers to provide little or no access and to adopt policies and practices that inhibit access, while others will invest in full access and adopt policies and practices that facilitate access, and still others will do nothing. In such a world, people with disabilities will not be able to rely on the ability to consistently access the Internet, will often be unable to know in advance whether a given Internet provider will support the accessibility features and assistive technology they need, and, as a consequence, will have restricted choices and may even simply give up on broadband Internet use. Providers will have incentives to adopt a wait-and-see approach and the burden will fall on the Commission to rigorously use its enforcement powers. This approach is likely to result in access for people with disabilities being achieved only piecemeal and over a longer period of time than the other two frameworks. In addition, it may cause providers who provide services without considering access for people with disabilities to incur substantial retrofit expenses that often could be avoided if disability access were considered up-front.

Moreover, the framework which treats broadband Internet services as information services, rather than telecommunications, is not consistent with technology as it is developing. The Commission unnecessarily and incorrectly ceded its appropriate authority when it ruled that Internet services were not classified as telecommunications. Increasingly, we are going to see a continuum of products – personal digital assistants, televisions, cameras, and even medical devices – that are capable of transporting communications. There will be no clear breaks in this

continuum, and at times it will be difficult or even impossible to determine where a telephone-like product begins and where it ends. It is for this reason that we urge that if a device or service permits communications, that device or service be considered within the realm of products and services that are guaranteed to be accessible by people with disabilities, regardless of whether that item has historically been classified in a particular way. Telecommunications should be interpreted broadly enough to include the many forms of communication available now and flexibly enough to appropriately incorporate the many new forms of communication to be developed.

The FCC's current regulatory scheme uses very different approaches to nearly identical services. As the lines distinguishing telephones from computers and other electronic devices continue to blur, the Commission's regulatory framework needs to shift from one that is tied to specific transmission formats and products to one that is tied to the functions of particular communication services. Only this approach will create a level playing field for providers, and assurances for consumers with disabilities that as broadband Internet services increasingly become a part of their lives, they will have the same rights and abilities to use these services as everyone else.

B. Classification of Internet Services as Telecommunications Subject to Title II is Legally Justified and Consistent with the Reality of the Technology

The Commission should reclassify broadband Internet services as telecommunications subject to Title II of the Communications Act. Such reclassification would, as discussed above, reflect the reality that, as a functional matter, the difference between telephonic and Internet communications is nonexistent. Internet communications perfectly meet the definition of telecommunication as "***the transmission, between or among points specified by the user, of***

information of the user's choosing, without change in the form or content of the information as sent and received."

Correctly classifying broadband access services as telecommunications services would eliminate any need to rely on ancillary jurisdiction by making clear that the FCC has direct jurisdiction over these issues. Competition among Internet service providers has come to largely hinge upon the capability of their networks to effectively transmit packets, which, as Public Knowledge explains, is the "essence of the provision of basic telecommunications services," rather than the integration of transmission and information service components (the latter of which had, in part, formed the basis for the FCC's decision to classify these services under Title I).

Reliance on artificial distinctions based on the underlying technology not only causes accessibility gaps, but also leads to confusion for consumers and creates an uneven playing field for companies who provide nearly identical services over different transmission protocols. More than ever before, the blurring and convergence of communication technologies make distinctions in transmission classifications meaningless. Without crosscutting regulation, identical services may be accessible or inaccessible, depending solely on the technology used to carry them or the networks used to interconnect them. For example, companies are now developing phones that can seamlessly hand over from cellular operation to Wi-Fi operation as an individual enters a building or a home. If regulatory coverage is based on distinguishing telephony from information services, phone calls could switch from telecommunications services to information services as people walked from their cars into their houses – and become inaccessible.[18]

[18] Comments of the RERC on Telecommunications Access, submitted *In the Matter of IP-Enabled Services,* WC Dkt. No. 04-36 at 25 (May 28, 2004).

Modern communication technologies are also making it impossible to draw clean lines between all of the different communication channels. Take a voice conversation 'call' (traditional telephony), add (real-time) captions for hard of hearing callers (and you have captioned telephony), remove the voice for people who are deaf (and you have real-time text conversation), send as chunks instead of continuous flowing text (and you have IM), use a different method for transmission of these same short messages, this same conversation (and you have SMS), send as longer messages (and you have email). All are conversations and all can contain exactly the same words – expressing exactly the same function. Whether they are required to support accessibility features should not depend on which transmission mechanism (invisible to the user) is involved.

Similarly, broadcast is taking all forms. Take a television show transmitted over the air from a tower (TV), then broadcast it from a satellite (Satellite TV), or send it down a cable (cable TV), or send it over a wire using IP (IPTV), put it on the web and allow people to "tune in" and stream it to them (Internet TV – or Radio). All of these are real-time delivery of the same content in the same format and should follow the same rules. There should be a level competitive playing field – and equal accessibility.

In all of these cases, we have a continuum of function that takes different forms of delivery. If one is regulated then all must be, either because all are telecommunications or because they are so closely related to telecommunications that ancillary jurisdiction is authorized.

Recent discussions of "sunsetting" the public switched telephone network (PSTN) suggest that complete reliance on Internet-based technologies for all of our communication needs may be upon us sooner than originally anticipated. As this evolution of our nation's

communication infrastructure takes place, for the protection of all consumers, it is critical for the Commission to take this opportunity to establish clear jurisdiction over the transmission component of an Internet provider access services.

Furthermore, the Commission should not limit coverage to "interconnected" VoIP when creating rules. Restriction to "interconnected" VoIP assumes the continued existence of PSTN. Someday the PSTN will be turned off. Accessibility rules must not cease to exist at that time just because there will no longer be a PSTN to be "interconnected" with.

More importantly, where VoIP used in employment, government provision of services, civic events, social networks (where both getting a job and being able to compete and advance is often dependent on social networks), etc. happens to be "non-interconnected," it is no less important for people with disabilities to be able to access it in order to participate in those activities. For example:

- A company carries out a company-wide teleconference using a tool where everyone links in using their computers or the web browser on their smartphone. There is no PSTN connection. Therefore, if coverage is limited to "interconnected" VoIP, there will be no requirement that it be accessible even though it is telecommunication and essential to participation and advancement in the company.
- A smartphone company creates a new video-call technology using point-to-point communication and does not rely on, or even support, PSTN connections. If accessibility regulations are limited to "interconnected" systems, this form of telecommunication would also not be accessible, even if it, or it and its siblings, became the dominant form of telecommunication.

- A company could decide to use the voice features on a chat technology, rather than telephone, for a large portion of its employee communications, because it is point-to-point and free of charge. Both employees and customers of the company who have disabilities would not be protected by the telecommunication rules – even though it is clearly telecommunications - just because it is not tied to the PSTN.

The world is changing fast, and creating rules based on past technologies is not sufficient. Rules should be based on function and not form or medium of transport.

C. Forbearance

If the Commission determines to exercise forbearance in applying certain requirements of Title II, it should only exercise forbearance for requirements that meet the standards for forbearance proceedings. All Title II requirements should be applied except those that meet all three forbearance criteria, meaning those that (a) are "not necessary" to ensure that services "are just and reasonable and are not unjustly or unreasonably discriminatory;" (b) are "unnecessary for the protection of consumers;" AND (c) for which forbearance "is consistent with the public interest."

The Commission should not forbear from requiring compliance with Section 255's requirement that service providers make their services accessible to individuals with disabilities. Prohibiting broadband Internet service providers from discriminating on the basis of disability by making their services inaccessible is necessary to ensure that services are just and reasonable and not unjustly or unreasonably discriminatory. Prohibiting disability discrimination is also necessary for the protection of consumers with disabilities and allowing such discrimination would not be consistent with the public interest. On its

face, Section 255's requirements do not meet the forbearance requirements and, therefore, the Commission must exclude Section 255 from any forbearance.

Moreover, it is unnecessary to require separate notice and comment regarding requiring compliance with Section 255. Internet providers have been on notice of their need to comply with Section 255 by virtue of the Commission's ancillary authority over the issue, discussed above. Accessibility standards are available, tested, and have been long in use.

D. Role of Third-Party Standard-Setting Bodies

The Commission seeks comment on whether another approach, such as creation and reliance on third-party standards-setting organizations comprised of stakeholders with technical expertise could address the issues. In the disability context, it is unlikely that such a group of technical experts would adequately represent the voices of people with disabilities, particularly the wide variety of disabilities and disability issues impacted by broadband Internet service.

A third-party dispute resolution mechanism appears likely to result in a series of case-by-case determinations, which would undermine consistency, reliability, and informed choice. Providers would have incentives to wait-and-see if they are challenged rather than act proactively, and individuals with disabilities would be unable to count on an Internet they can consistently use. When a case-by-case approach is used, only the few with the resources to pursue complaints may ever receive a remedy. Such a private "arbitration" system allows providers to resolve issues with the particular individuals who file complaints, without changing the design of their products and addressing the problem for all users with disabilities. Private dispute resolution systems are too likely to lead to private solutions that resolve or even just "buy off" a particular complainant, rather than solving the underlying problem. Instead, the

mechanism needs to reward proactive companies that build access in and meet regulations where all can benefit rather than a mechanism where the economics, the business case, is better for those who delay and resolve cases individually. At a minimum, cases brought by individuals should require solutions that reach and resolve the cited problem for all similar individuals. The resolutions also need to have cross-product, cross-company, and cross-disability impact.

E. Coverage of Wired Versus Wireless Services

In the RFI the Commission distinguishes wired services from wireless services. It is assumed that the Commission poses this because of the bandwidth and other limitations today that wireless faces as compared to wireline. While this may be the reality today, wireless technology is fast advancing and will soon have much greater bandwidth and capacity than wired services do today. The Commission should not assume that wireless service will always have such limitations. Nor should the Commission base rules on technology types or media formats. Rather than develop rules that are based on technology types, the Committee should base regulations on the characteristics that are, in fact, causing the limitation it is trying to accommodate. Then, any technologies or media with the same characteristics would enjoy the same treatment. And when those characteristics disappear over time, so would the exceptions that were put in place to accommodate the limitation. Only in this way can a level playing field be established and maintained, now and into the future. It would also eliminate some of the gaming of the system that can and does occur whenever regulations are tied to types rather than function.

Thank you for the opportunity to contribute to the Commission's consideration of this important topic.

Respectfully Submitted,

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